

# GROWERTALKS

## Growers Talk Production

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### Frequent Hardy Mum Concerns

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During this time of the year, I get many questions on garden mum growing issues. It can be problems that have developed or observations that are becoming a concern. Many times, if the grower understands a few points, it can minimize the situation.

A garden mum grower needs to watch the environment the mums are placed in. Indoor greenhouse space gives you better protection and control against any varying elements that are experienced outdoors.

Outdoor production, on the other hand, has many challenges. The grower must try to stay ahead of any weather changes and attempt to prepare for those scenarios. The 10- to 14-day forecast is a great tool in planning and preparing for changes that may influence the crop's performance. Weather can cause stress on the plants, triggering an issue of premature budding. Early budding is one that can be addressed before it's a major problem.

Some stress—such as moisture, low fertility and temperature—can contribute to the budding issue. Temperature is one of the most frequent triggers. Nighttime temperatures of many of the current mum cultivars need to be above 60F (15C). Lower temperatures over a course of days generally cause the premature budding. The result of it can make the mum look stunted and odd-looking. Plant growth slows down and appears not to fill out as normal.

If you're experiencing cooler-than-normal temperatures, frequently scouting the crop can be beneficial to early detection of premature budding. Look at the plants' terminals to see if you can start to see this bud development. If you're seeing buds, there are a few practices that can prevent further development.

If you're growing a crop during a cooler nighttime temperature, then a suggestion of a planned application or two of Florel should be part of the production plan. Generally, this application can be applied seven to 10 days after transplanting and a follow-up again a week or two later. Applying this can maintain the vegetative state of the plant, counteracting the reproductive development that can possibly be triggered by the cool nights.

When using Florel remember that most mums start natural initiation around July 20 to 25. Keep in mind applying Florel past that date will delay the natural flower process. Consideration should be taken on the timing of the applications. Rates can vary, but most commonly are 500 to 750 ppm.

One other solution to the budding is pushing the plant beyond the situation with fertilization. Mums are heavy feeders and a feed program of around 250 to 300 ppm is quite normal. So if you fall victim to premature budding, increasing your feed levels to 350 to 400 ppm level using a feed ratio of 20-10-20 or 20-20-20 will push new growth past the buds. Maintain this until you start to get the results of new growth covering the buds.

Flower timing is a common question (the crop is not all blooming on time with other mums in production). In this

situation, I usually find the grower didn't schedule mums in the same family or of similar photoperiods. Mums are divided into various categories: Early, Mid and Late. Most catalogs list them this way so you can coordinate them to time together. They can also vary a bit in each family group, but generally no more than five to seven days. Watching your selections for natural flowering time will help in timing them properly.

Pinching is frequently questioned, especially with the newer mum grower. My answer is a simple no. Today's varieties don't require the old method of achieving a full plant by pinching or multiple pinching; plants will fill out naturally. With a no-pinch program, the plants can look tall and skinny for a few weeks. This won't continue for long and the plants will fill out with a normal fertilization program.

Controlling growth, especially after the size is approaching the grower's desired height, is a very common concern. I recommend B-Nine sprays at rates of 2,500 to 5,000 ppm for toning and shaping the plant earlier in the program. Watching internode stretch on the shoot development would dictate the need to slow the growth down. Layering sprays to get the desired effect has always been a good practice. Keep in mind spraying growth regulators can delay flowering if sprayed on buds. Once the plant is 75% of your desired height, a Bonzi or other paclobutrazol product drench of 2 to 3 ppm can put the plant into desired height and maintain it to the finish.

One final point of concern is disease. Generally, it's discovered from another observation. The plant may look nutrient deficient and the grower suspects that it's under-fertilized, or the plants are wilting during the warmest part of the day causing questions on moisture level. Pythium can be the culprit. This root disease can develop readily. Having a preventative treatment at transplanting can help in the beginning, and by looking at the roots regularly, can detect further issues.

Make it a habit to look at the crop's roots periodically. Watching for signs of damaged or off-color roots can help deter a major fallout. If history has shown this to be an issue later in your production cycle, then making another fungicide application mid-season can stop the progression.

As a grower, being aware of some of these issues and exploring these production tips, you'll be able to make your mum crop the success you're growing for. **GT**

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